



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : C07K 16/20, C12N 5/20, A61K 39/395, A61P 33/06		A2	(11) International Publication Number: <b>WO 00/52056</b>
			(43) International Publication Date: 8 September 2000 (08.09.00)
(21) International Application Number: PCT/US00/05820		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 3 March 2000 (03.03.00)		<b>Published</b> <i>Without international search report and to be republished upon receipt of that report.</i>	
(30) Priority Data: 60/122,842 4 March 1999 (04.03.99) US 60/153,575 13 September 1999 (13.09.99) US			
(71) Applicant (for all designated States except US): ENTREMED, INC. [US/US]; 9640 Medical Center Drive, Rockville, MD 20850 (US).			
(72) Inventors; and			
(75) Inventors/Applicants (for US only): NARUM, David, L. [US/US]; 8533 Fountain Valley Drive, Gaithersburg, MD 20879 (US). SIM, Kim, Lee [US/US]; 308 Argosy Drive, Gaithersburg, MD 20878 (US).			
(74) Agents: ELSEVIER, Lisa, C. et al.; Jones & Askew, LLP, 2400 Monarch Tower, 3424 Peachtree Road, N.E., Atlanta, GA 30326 (US).			

(54) Title: ANTI-PLASMODIUM COMPOSITIONS AND METHODS OF USE

## Malaria: EBA-175 Neutralizing MABS

### Anti-R11 mAbs neutralize merozoite invasion *in vitro*

Strains	% Growth Inhibition (merozoite blockade)			
	mAb R216	mAb R215	mAb R217	mAb R256
FVO	7 p=0.255	82 p=0.005	83 p=0.005	76 p=0.005
3D7	27 p=0.007	35 p=0.002	39 p=0.004	37 p=0.002

## (57) Abstract

Compositions that inhibit the binding of *Plasmodium falciparum* to erythrocytes are provided. More particularly, antibodies specific for *Plasmodium falciparum* binding proteins and blocking peptides that prevent the binding of *Plasmodium falciparum* are included in the present invention. The methods provided utilize the antibody and peptide compositions provided herein and include methods for the diagnosis, prevention, and treatment of *Plasmodium falciparum* diseases such as malaria as well as methods for the detection of *Plasmodium falciparum* in biological samples and culture media.